

Amendments to and Listing of the Claims:

Please amend claims 1, 2, 4, 5, 7-10, 12, 15, 16, 18-23, without prejudice or disclaimer, and cancel claim 17 without prejudice or disclaimer. The following listing of claims replaces all prior versions of the claims.

1. (Currently Amended) An isolated estrogen receptor gene comprising a nucleotide sequence coding for any of the following amino acid sequences (a) to (f) ~~(d)~~:

- (a) the amino acid sequence of SEQ ID NO: 1,
- (b) the amino acid sequence of SEQ ID NO: 4,
- ~~(c) the amino acid sequence of SEQ ID NO: 23;~~
- ~~(d) (c)~~ an amino acid sequence exhibiting 95% or more amino acid identity to the amino acid sequence of SEQ ID NO: 1, and
- ~~(e) (d)~~ an amino acid sequence exhibiting 95% or more amino acid identity to the amino acid sequence of SEQ ID NO: 4; and
- ~~(f) an amino acid sequence exhibiting 85% or more amino acid identity to the amino acid sequence of SEQ ID NO: 23.~~

2. (Currently Amended) An isolated estrogen receptor gene comprising any of the following nucleotide sequences (g) to (i) ~~(h)~~:

- (g) the nucleotide sequence represented by nucleotide numbers 424 to 1941 of SEQ ID NO: 2, and
- (h) the nucleotide sequence represented by nucleotide numbers 74 to 1819 of SEQ ID NO: 5; and
- ~~(i) the nucleotide sequence represented by nucleotide numbers 106 to 1767 of SEQ ID NO: 24.~~

3. (Original) A vector comprising the estrogen receptor gene according to claim 1.

4. (Currently Amended) The vector according to claim 3, wherein a promoter is operably linked to the estrogen receptor gene.

5. (Currently Amended) The vector according to claim 3, wherein the vector is a virus viral vector.

6. (Original) A viral particle containing the vector according to claim 5.
7. (Currently Amended) A method for producing a vector, comprising a ~~step of~~ incorporating the estrogen receptor gene according to claim 1 into a vector replicable in a host cell.
8. (Currently Amended) A transformant[[,]] ~~wherein produced by introducing the~~ estrogen receptor gene according to claim 1 ~~is introduced into a host cell, wherein the host cell is isolated or cultured in vitro.~~
9. (Currently Amended) A transformant[[,]] ~~wherein produced by introducing the~~ vector according to claim 3 ~~is introduced into a host cell, wherein the host cell is isolated or cultured in vitro.~~
10. (Currently Amended) The transformant according to claim 8, ~~wherein comprising~~ the estrogen receptor gene ~~is introduced into~~ in a chromosome of ~~said the~~ host cell.
11. (Previously Presented) The transformant according to claim 8, wherein the host cell is an animal cell.
12. (Currently Amended) The transformant according to claim 8, wherein the host cell is a ~~mammal~~ mammalian cell.
13. (Previously Presented) The transformant according to claim 8, wherein the host cell is an insect cell.
14. (Previously Presented) The transformant according to claim 8, wherein the host cell is a yeast cell.
15. (Currently Amended) A method for producing a transformant, comprising a ~~step of~~ introducing the estrogen receptor gene according to claim 1 into a host cell.
16. (Currently Amended) A method for manufacturing an estrogen receptor, comprising a ~~step of~~ culturing the transformant according to claim 8, ~~thereby and a step of~~ producing the estrogen receptor.

17. (Canceled)

18. (Currently Amended) ~~The DNA according to claim 17~~ An isolated DNA comprising a partial nucleotide sequence of the estrogen receptor gene according to claim 1, wherein the partial nucleotide sequence is a nucleotide sequence coding for a ligand binding domain of the estrogen receptor.

19. (Currently Amended) An isolated estrogen receptor, comprising any of the following amino acid sequences (a) to ~~(f)~~ (d):

- (a) the amino acid sequence of SEQ ID NO: 1,
- (b) the amino acid sequence of SEQ ID NO: 4,
- ~~(c) the amino acid sequence of SEQ ID NO: 23,~~
- ~~(d)~~ (c) an amino acid sequence exhibiting 95% or more amino acid identity to the amino acid sequence of SEQ ID NO: 1, and
- ~~(e)~~ (d) an amino acid sequence exhibiting 95% or more amino acid identity to the amino acid sequence of SEQ ID NO: 4, and
- ~~(f) an amino acid sequence exhibiting 85% or more amino acid identity to the amino acid sequence of SEQ ID NO: 23.~~

20. (Currently Amended, Withdrawn) A method for evaluating the ability of a test substance to regulate estrogen receptor activity, comprising ~~a step of:~~
bringing the test substance into contact with a transformant, wherein the transformant comprises a reporter gene linked downstream of a transcriptional control region including an estrogen response element sequence and the estrogen receptor gene according to claim 1 are introduced into the transformant, and wherein the transcriptional control region includes an estrogen response element sequence, and
measuring an expression amount of the reporter gene ~~in from~~ the transformant.

21. (Currently Amended, Withdrawn) A receptor binding assay, comprising ~~a step of:~~
bringing a test substance into contact with the estrogen receptor according to claim 19 and incubating the test substance together with the estrogen receptor.

22. (Currently Amended, Withdrawn) A method for measuring the ability of a test substance to regulate estrogen receptor activity comprising ~~the steps of:~~

(A) measuring any variation in expression amount of a reporter gene in a two-hybrid system when the test substance is added to the two-hybrid system, wherein in the two-hybrid system ligand-dependent formation of a complex results in activation of transcription of the reporter gene, wherein the complex comprises (i) an estrogen receptor encoded by the estrogen receptor gene according to claim 1 and (ii) a transcription coupling factor capable of ligand-dependently binding to the estrogen receptor or a receptor binding domain of the transcription coupling factor; and

(B) evaluating the ability of the test substance to regulate estrogen receptor activity.

23. (Currently Amended, Withdrawn) A method for measuring the ability of a test substance to regulate estrogen receptor activity comprising ~~the steps of~~:

(A) measuring any variation in expression amount of a reporter gene in a two-hybrid system when the test substance is added to the two-hybrid system, wherein in the two-hybrid system ligand-dependent formation of a complex results in activation of transcription of the reporter gene, wherein the complex comprises (i) a ligand binding domain of an estrogen receptor, the domain being encoded by a DNA comprising a partial nucleotide sequence of 300 or more nucleotides of the estrogen receptor gene according to claim 1, and (ii) a transcription coupling factor capable of ligand-dependently binding to the estrogen receptor or a receptor binding domain of the transcription coupling factor; and

(B) evaluating the ability of the test substance to regulate estrogen receptor activity.